

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A computer program product, tangibly embodied in a machine-readable storage device ~~an information carrier~~, the computer program product comprising instructions operable to cause data processing apparatus to:

identify at a client abstraction layer on a server, one or more selection data elements in a client request, where each selection data element specifies an adapter type, a client type, or data describing the client; and

use the data elements to select an adapter at the client abstraction layer to convert communication ~~communicate~~ between an application running on the server and one or more client programs, the adapter being used by the client abstraction layer as an intermediary, the adapter hiding client-specific behavior from the application running on the server with the client based on the selection data elements.

2. (Original) The product of claim 1, wherein the instructions to select an adapter comprise instructions to:

perform a multi-stage selection process to select an adapter, the multi-stage selection process comprising:

performing an adapter-request process for selecting an adapter based on the selection data elements that specify the adapter type;

if the adapter-request process fails to select an adapter, performing a client-identification process for selecting an adapter based on the selection data elements that specify the client type; and

if the client-identification process fails to select an adapter, performing a

client-description process for selecting an adapter based on the selection data elements that specify data describing the client.

3. (Original) The product of claim 1, wherein the selected adapter makes use of a client capability particular to the client.
4. (Original) The product of claim 3, wherein the client capability comprises the capability to execute instructions in a scripting language.
5. (Original) The product of claim 1, wherein the operation to select an adapter comprises:  
identifying multiple adapters suitable for communicating with the client; and  
selecting an adapter from the multiple adapters that makes use of a particular client capability.
6. (Original) The product of claim 1, wherein the operation to select an adapter comprises:  
identifying multiple adapters suitable for communicating with the client; and  
selecting an adapter from the multiple adapters that requires the least communication with the client.
7. (Currently Amended) The product of claim 1, wherein the client has multiple client capabilities, and wherein the operation to select an adapter comprises:  
identifying multiple adapters suitable for communicating with the client; and  
selecting an adapter from the multiple adapters that is operable to make use of the greatest number of the multiple client capabilities.
8. (Original) The product of claim 1, wherein the adapter is selected from a plurality of adapters stored on a server, the plurality of adapters including one or more of a mobile adapter for a client that comprises a mobile device, an HTML adapter for a client that supports HTML, an XML adapter for a client that supports XML, an RMI adapter for a client that supports RMI, and a JavaScript adapter for a client that supports JavaScript.

9. (Original) The product of claim 2, wherein the client-description process comprises:  
using the specification of data describing the client to identify a client capability; and  
wherein the adapter selected to communicate with the client conforms to the client capability.
10. (Original) The product of claim 9, wherein the client capability is a screen size.
11. (Original) The product of claim 2, wherein the client-identification process comprises  
looking up the specification of the client type in a table.
12. (Original) The product of claim 1, wherein the specification of the client type comprises  
a specification of a browser and version number.
13. (Currently Amended) A system comprising:  
a server operable to run an application;  
a plurality of client-specific adapters, each adapter in the plurality enabling  
communication between the application on the server and a client; and  
a client abstraction layer on the server operable to:  
identify one or more selection data elements in a client request, where each selection data  
element specifies an adapter type, a client type, or data describing the client; and  
use the data elements to select an adapter at the client abstraction layer to enable  
communication communicate between an application running on the server and one or more  
client programs, the adapter being used by the client abstraction layer as an intermediary, the  
adapter hiding client-specific behavior from the application running on the server with the client  
based on the selection data elements.
14. (Original) The system of claim 13, wherein the operation to select an adapter comprises:  
performing a multi-stage selection process to select an adapter, the multi-stage selection  
process comprising:  
performing an adapter-request process for selecting an adapter based on the selection data

elements that specify the adapter type;

if the adapter-request process fails to select an adapter, performing a client-identification process for selecting an adapter based on the selection data elements that specify the client type; and

if the client-identification process fails to select an adapter, performing a client-description process for selecting an adapter based on the selection data elements that specify data describing the client.

15. (Original) The system of claim 13, wherein the adapter is selected from a plurality of adapters stored on a server, the plurality of adapters including one or more of a mobile adapter for a client that comprises a mobile device, an HTML adapter for a client that supports HTML, an XML adapter for a client that supports XML, an RMI adapter for a client that supports RMI, and a JavaScript adapter for a client that supports JavaScript.

16. (Currently Amended) A method comprising:

~~identifying~~ identify at a client abstraction layer on a server, one or more selection data elements in a client request, where each selection data element specifies an adapter type, a client type, or data describing the client; and

using the data elements to select ~~selecting~~ an adapter at the client abstraction layer to convert communication ~~communicate~~ between an application running on the server and one or more client programs, the adapter being used by the client abstraction layer as an intermediary, the adapter hiding client-specific behavior from the application running on the server with the client based on the selection data elements.

17. (Original) The method of claim 16, wherein selecting an adapter comprises:

performing a multi-stage selection process to select an adapter, the multi-stage selection process comprising:

performing an adapter-request process for selecting an adapter based on the selection data elements that specify the adapter type;

if the adapter-request process fails to select an adapter, performing a client-identification

process for selecting an adapter based on the selection data elements that specify the client type;  
and

if the client-identification process fails to select an adapter, performing a  
client-description process for selecting an adapter based on the selection data elements that  
specify data describing the client.

18. (Currently Amended) An apparatus comprising:

means for identifying at a client abstraction layer on a server, one or more selection data  
elements in a client request, where each selection data element specifies an adapter type, a client  
type, or data describing the client; and

means for using the data elements to select ~~selecting~~ an adapter at the client abstraction  
layer to convert communication ~~communicate~~ between an application running on the server and  
one or more client programs, the adapter being used by the client abstraction layer as an  
intermediary, the adapter hiding client-specific behavior from the application running on the  
server with the client-based on the selection data elements.

19. (Original) The apparatus of claim 18, wherein the means for selecting an adapter  
comprises:

performing a multi-stage selection process to select an adapter, the multi-stage selection  
process comprising:

performing an adapter-request process for selecting an adapter based on the selection data  
elements that specify the adapter type;

if the adapter-request process fails to select an adapter, performing a client-identification  
process for selecting an adapter based on the selection data elements that specify the client type;  
and

if the client-identification process fails to select an adapter, performing a  
client-description process for selecting an adapter based on the selection data elements that  
specify data describing the client.

20. (Original) The apparatus of claim 18, wherein the adapter is selected from a plurality of adapters stored on a server, the plurality of adapters including one or more of a mobile adapter for a client that comprises a mobile device, an HTML adapter for a client that supports HTML, an XML adapter for a client that supports XML, an RMI adapter for a client that supports RMI, and a JavaScript adapter for a client that supports JavaScript.